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Subject: Casey briefing

Karen,
Here is the senators floor statement on this legislation so you have some background on the staffs perspective.

Its a rambling piece with a few anecdotal cases.

Mr. CASEY. Mr. President, I rise today to introduce the Fracturing Responsibility and Awareness of Chemicals, FRAC, Act along with my colleague, Senator Schumer, that protects drinking water and public health from the risks associated with an oil and gas extraction process called hydraulic fracturing. Specifically, our bill does two things. First, it repeals an exemption to the Safe Drinking Water Act that was granted to oil and gas companies four years ago. Second, it requires oil and gas companies to publicly disclose the chemicals used in hydraulic fracturing. The regulation of hydraulic fracturing under the Safe Drinking Water Act is supported by 77 groups, including 14 groups from Pennsylvania.

The oil and gas industry uses hydraulic fracturing in 90 percent of wells. The process, which is also called ``fracking," involves injecting tens of thousands of gallons of water mixed with sand and chemical additives deep into the rock under extremely high pressure. The pressure breaks open the rock releasing trapped natural gas, which is then captured. Fracking often occurs near underground sources of drinking water. Unfortunately, a provision included in the 2005 Energy Policy Act exempted hydraulic fracturing from compliance with the Safe Drinking Water Act. The oil and gas industry is the only industry to have this exemption.

The Casey-Schumer legislation is extremely important to people living in Pennsylvania, especially those living in communities along a geological formation called the Marcellus Shale. The Marcellus is a geological formation covering 34 million acres extending from southern New York, through central and western Pennsylvania, into the eastern half of Ohio and across most of West Virginia. The deepest layer of the Marcellus formation--the Marcellus Shale--contains a significant amount of natural gas trapped in deep rock formations up to 9,000 feet below ground. Last year, a professor at Penn State estimated that there was 168 million cubic feet of natural gas in the Marcellus Shale. In the industry it is what is known as a ``Super Giant gas field." It is enough natural gas to provide for the entire country for 7 years. This vast amount of natural gas combined with a more complete knowledge of the natural fractures in the Marcellus Shale through which the gas can be easily extracted, has led to what Pennsylvanians are calling a gas rush.

As I have mentioned, fracking involves injecting water mixed with chemicals. My major concern is that the chemicals added to the water to create fracking fluids are highly toxic. We're talking about chemicals like formaldehyde, benzene, and toluene. These chemicals are injected right below underground drinking water. This is especially important to Pennsylvania because our state has the second highest number of private wells for drinking water in the nation, second only to Michigan. Three million Pennsylvanians are dependent on private wells to provide safe drinking water to their homes. So massive drilling to get to the natural gas in the Marcellus Shale is not required to comply with the Safe Drinking Water Act, but drilling is happening right

next to drinking water supplies. You can see why Pennsylvanians are concerned about their future access to safe drinking water.

Now, the oil and gas industry would have you believe that there is no threat to drinking water from hydraulic fracturing. But the fact is we are already seeing cases in Pennsylvania, Colorado, Virginia, West Virginia, Alabama, Wyoming, Ohio, Arkansas, Utah, Texas, and New Mexico where residents have become ill or groundwater has become contaminated after hydraulic fracturing operations began in the area. This is not simply anecdotal evidence; scientists have found enough evidence to raise concerns as well. In a recent letter supporting our bill, 23 health professionals and scientists wrote the following:

..... Oil and gas operations are known to release substances into the environment that are known to be very hazardous to human health, including benzene, arsenic, mercury, hydrogen sulfide, and radioactive materials. The demonstrated health effects caused by these substances include cancers, central nervous system damage, skin and eye irritation, and lung diseases. For example, fluids used in the hydraulic fracturing process may contain toxic chemicals such as 2-

butoxyethanol, formaldehyde, sodium hydroxide, glycol ethers, and naphthalene. For these reasons, we support regulation of hydraulic fracturing under the Safe Drinking Water Act and the disclosure of all chemical constituents in hydraulic fracturing fluids to public agencies, including the disclosure of constituent formulas in cases of medical need. Moreover, we support full regulation of stormwater runoff, which can pollute drinking water supplies, under the Clean Water Act.

There are growing reports of individuals living near oil and gas operations who suffer illnesses that are linked to these activities, yet there has been no systemic attempt to gather the necessary data, establish appropriate monitoring, analyze health exposure or assess risk related to any of these activities. This should be done, in addition to full Health Impact Assessments to inform future planning and policy efforts.

In Dimock, Pennsylvania, we have a recent example of the risks involved with hydraulic fracturing. On New Year's Day, Norma Fiorentino's drinking water well exploded. It literally blew up. Stray methane leaked and migrated upward through the rock and into the aquifer as natural gas deposits were drilled nearby. An investigation by the Commonwealth of Pennsylvania shows that a spark created when the pump in the well house turned on may have led to the explosion. The blast cracked in half the several-thousand-pound concrete slab at the drilling pad on Ms. Fiorentino's property and tossed it aside. Fortunately, no one was hurt in the explosion. But throughout the town, several drinking water wells have exploded and nine wells have been found to contain so much natural gas that one homeowner was advised to open a window if he plans to take a bath. Tests of the well water show high amounts of aluminum and iron, which leads researchers to believe that drilling fluids are contaminating the water along with the gas. So this is a real concern. We are talking about serious implications if we don't develop the Marcellus Shale carefully and responsibly.

I would point out that Pennsylvania has a long history of developing our natural resources to power the region and the nation. In fact, Pennsylvania is home to the Drake Well near Titusville, Pennsylvania, which celebrates its 150th anniversary this year. The Drake Well was the first commercial oil well in the United States and it launched the modern petroleum industry. In addition to oil, Western Pennsylvania has long produced natural gas. Pennsylvania also mines coal which we use to provide electricity to many of our neighboring states. Pennsylvanians are proud of the contributions we have made to the growth of our nation. Contributions that were made because we developed our abundant natural resources. But we also bear the burden of some environmental legacies, most created in previous generations when we were not as concerned with responsible development. We have old natural gas wells that were not capped and leak methane into homes in Versailles, PA. We have acid mine drainage that we spend millions of dollars every year to try and remediate. These examples are the lessons from which we need to learn.

Pennsylvania will develop the natural gas in the Marcellus Shale. We are doing it right now, and we will see more drilling over the next few years. But we must develop the Marcellus Shale using the best environmental practices to protect our communities and our state. That is why I am introducing the Fracturing Responsibility and Awareness of Chemicals Act. This legislation will ensure that hydraulic fracturing does not unnecessarily jeopardize our groundwater. There are affordable alternatives that oil and gas companies can use so that they are not risking contaminating drinking water wells with potentially hazardous chemicals.

I think Norma Fiorentino from Dimock, Pennsylvania, summed it up best when she told a reporter, "You can't buy a good well."

So I urge all of my colleagues to support this legislation and ensure that our groundwater is protected as we responsibly develop our natural resources.

Let me know .

Call my cell at 304 312 0615